

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of the Claims:**

1. (Currently Amended) A method comprising:  
  
storing a generational age value in association with an equivalence class in a memory operatively associated with a processor configured to execute instructions associated with the equivalence class;  
  
determining an age of [[an]] ~~the~~ equivalence class based on the generational age value; [[and]]  
  
cloning the equivalence class ~~based on~~ in response to the age of the equivalence class being less than an age threshold; and  
  
incrementing the generational age value stored in association with the equivalence class in response to the cloning of the equivalence class.
2. (Previously Presented) A method as defined in claim 1, wherein the equivalence class is associated with an escape analysis.
3. (Original) A method as defined in claim 1, wherein determining the age of the equivalence class includes an initialization operation.
4. (Currently Amended) A method as defined in claim 1, ~~wherein~~  
~~determining the age of the equivalence class includes incrementing the age of the equivalence class in response to a cloning operation further comprising, when the age of the equivalence class is not less than the age threshold:~~  
  
not cloning the equivalence class;  
  
merging the equivalence class with a second equivalence class; and  
  
referencing the merged equivalence classes using a memory reference.

5. (Previously Presented) A method as defined in claim 1, wherein determining the age of the equivalence class includes selecting the age of the equivalence class to be a greater age of first and second ages associated with respective merged equivalence classes.

6. (Currently Amended) A method as defined in claim 1, wherein cloning the equivalence class ~~based on the age of the equivalence class~~ includes associating the equivalence class with one of an old equivalence class or a young equivalence class.

7. (Currently Amended) A method as defined in claim 6, further comprising associating the equivalence class with the old equivalence class in response to the age of the equivalence class being greater than or equal to ~~[[an]]~~ the age threshold.

8. (Currently Amended) A method as defined in claim 6, further comprising associating the equivalence class with the young equivalence class in response to the age of the equivalence class being less than ~~[[an]]~~ the age threshold.

9. (Currently Amended) A system comprising:

a memory; and

a processor coupled to the memory ~~and configured to, the processor to:~~

store a generational age value in association with an

equivalence class in the memory;

determine an age of [[an]] the equivalence class based on the

generational age value; [[and]]

clone the equivalence class based on in response to the age of

the equivalence class being less than an age threshold; and

increment the generational age value stored in association with

the equivalence class in response to the cloning of the equivalence

class.

10. (Original) A system as defined in claim 9, wherein the equivalence

class is associated with an escape analysis.

11. (Currently Amended) A system as defined in claim 9, wherein the

processor is ~~configured further~~ to determine the age of the equivalence class

subsequent to an initialization operation.

12. (Currently Amended) A system as defined in claim 9, wherein the

~~processor is configured to determine the age of the equivalence class by incrementing~~

~~the age of the equivalence class in response to a cloning operation when the age of the~~

~~equivalence class is not less than the age threshold, the processor is further to:~~

not clone the equivalence class;

merge the equivalence class with a second equivalence class; and

reference the merged equivalence classes using a memory reference.

13. (Currently Amended) A system as defined in claim 9, wherein the processor is ~~configured further~~ to determine the age of the equivalence class by selecting the age of the equivalence class to be a greater age of first and second ages associated with respective merged equivalence classes.

14. (Currently Amended) A system as defined in claim 9, wherein the processor is ~~configured further~~ to clone the equivalence class ~~based on the age of the equivalence class~~ by associating the equivalence class with one of an old equivalence class or a young equivalence class.

15. (Currently Amended) A system as defined in claim 14, wherein the processor is ~~configured further~~ to associate the equivalence class with the old equivalence class in response to the age of the equivalence class being greater than or equal to ~~[[an]]~~ the age threshold.

16. (Currently Amended) A system as defined in claim 14, wherein the processor is ~~configured further~~ to associate the equivalence class with the young equivalence class in response to the age of the equivalence class being less than ~~[[an]]~~ ~~the~~ age threshold.

17. (Currently Amended) A machine accessible medium having instructions stored thereon that, when executed, cause a machine to:

store a generational age value in association with an equivalence class;

determine an age of ~~[[an]]~~ the equivalence class based on the generational age value; ~~[[and]]~~

clone the equivalence class ~~based on~~ in response to the age of the equivalence class being less than an age threshold, and

increment the generational age value stored in association with the equivalence class in response to the cloning of the equivalence class.

18. (Original) A machine accessible medium as defined in claim 17,  
wherein the equivalence class is associated with an escape analysis.

19. (Original) A machine accessible medium as defined in claim 17 having  
instructions stored thereon that when executed cause the machine to determine the age  
of the equivalence class subsequent to an initialization operation.

20. (Currently Amended) A machine accessible medium as defined in  
claim 17 having instructions stored thereon that when executed cause the machine to  
~~determine the age of the equivalence class by incrementing the age of the equivalence~~  
~~class in response to a cloning operation, when the age of the equivalence class is not~~  
~~less than the age threshold;~~

not clone the equivalence class;

merge the equivalence class with a second equivalence class; and

reference the merged equivalence classes using a memory reference.

21. (Previously Presented) A machine accessible medium as defined in  
claim 17 having instructions stored thereon that when executed cause the machine to  
determine the age of the equivalence class by selecting the age of the equivalence  
class to be a greater age of first and second ages associated with respective merged  
equivalence classes.

22. (Currently Amended) A machine accessible medium as defined in  
claim 17 having instructions stored thereon that when executed cause the machine to  
clone the equivalence class ~~based on the age of the equivalence class~~ by associating  
the equivalence class with one of an old equivalence class or a young equivalence  
class.

23. (Currently Amended) A machine accessible medium as defined in claim 22 having instructions stored thereon that when executed cause the machine to associate the equivalence class with the old equivalence class in response to the age of the equivalence class being greater than or equal to ~~[[an]]~~ the age threshold.

24. (Currently Amended) A machine accessible medium as defined in claim 22 having instructions stored thereon that when executed cause the machine to associate the equivalence class with the young equivalence class in response to the age of the equivalence class being less than ~~[[an]]~~ the age threshold.